Economic and Social Commission for Western Asia (ESCWA)

RICCAR Vulnerability Assessment Task Force on Sensitivity Indicators
20-21 October 2014, Beirut, Lebanon

RICCAR Vulnerability Assessment Task Force on Adaptive Capacity Indicators
22-23 October 2014, Beirut, Lebanon

INFORMATION NOTE

I. BACKGROUND

In response to resolutions adopted by the Arab Ministerial Water Council (AMWC), the Council of Arab Ministers Responsible for the Environment (CAMRE), the ESCWA 25th Ministerial Session, as well as inter-agency collaborative processes involving the specialized and regional organizations of the United Nations and the League of Arab States, a Regional Initiative for the Assessment of the Impact of Climate Change on Water Resources and Socio-Economic Vulnerability in the Arab Region (RICCAR) was launched. The initiative was formulated based on the outcomes of the Expert Group Meeting Towards Assessing the Vulnerability of Water Resources to Climate Change in the Arab Region (Beirut, October 2009), which was organized by the League of Arab States (LAS), the United Nations Economic and Social Commission for Western Asia (ESCWA) and the United Nations Environment Programme Regional Office for West Asia (UNEP/ROWA) with financial support from other organizations. These discussions led the initiative to be structured around four pillars of work comprising (a):

(a) Baseline review and creation of a regional knowledge hub for climate and water;
(b) Integrated assessment consisting of an impact assessment and vulnerability assessment;
(c) Awareness raising and information dissemination; and
(d) Capacity building and institutional strengthening.

The RICCAR was elaborated by Arab member states as well as United Nations and LAS organizations during subsequent expert group meetings, which have been held on an annual basis since 2009. Regional workshop and working groups have also been established to support capacity development and solicit technical inputs from regional stakeholders on the preparation of vulnerability assessment and establishment of the regional knowledge hub.

RICCAR is implemented through a collaborative partnership involving 11 partner organizations, namely the LAS, ESCWA, UNEP, the Cairo Office of the United Nations Educational, Scientific and Cultural Organization (UNESCO), the United Nations University Institute for Water, Environment and Health (UNU-INWEH), the Regional Office for the Arab States of the United Nations Office for Disaster Risk Reduction (UNISDR), the Arab Center for the Studies of Arid Zones and Dry Lands (ACSAD), the Swedish Meteorological and Hydrological Institute (SMHI), Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), the World Meteorological Organization (WMO) and the Food and Agriculture Organization (FAO). Three research institutes have also offered to contribute to the regional climate modeling ensemble being coordinated by SMHI, namely the Center of Excellence for Climate Change Research at King Abdulaziz University (KSA), the King Abduallah University of Science and Technology (KSA), and the Climate Services Center (Germany). In addition to resources and contributions provided by
the partner agencies and institutes, the Swedish International Development Cooperation Agency (Sida) and the German Federal Ministry for Economic Cooperation and Development (BMZ) financially support the Regional Initiative. Regular reports on the Regional Initiative are submitted to the Arab Ministerial Water Council, Arab Permanent Committee for Meteorology, ACSAD Board of Directors and ESCWA Committee on Water Resources. Additional information is available at www.escwa.un.org/RICCAR

The GIZ-led project, Adaptation to Climate Change in the Water Sector in the MENA Region (ACCWaM), supports the preparation of the vulnerability assessment, integrated mapping and regional knowledge hub components of RICCAR. A RICCAR Vulnerability Assessment Working Group was thus established in January 2012 to support the preparation of the vulnerability assessment methodology and review of the resulting assessment. Three meetings of the VA-WG were supported by GIZ during 2012 and 2013. These consultations resulted in agreement on five sectors upon which to focus the vulnerability assessment to climate change, namely:

(a) Water
(b) Biodiversity and Ecosystems
(c) Agriculture
(d) Infrastructure and Human Settlements; and
(e) People

GIZ also offered technical assistance on the development of the vulnerability assessment methodology through adelphi, a Germany consultancy based in Berlin. The Institute for Applied Remote Sensing European Academy of Bozen/Bolzano (EURAC) in Italy was brought on board in 2014 to technically support adelphi with the preparation of the methodology based on input provided by the VA-WG and associated consultations. This resulted in the preparation of a draft training manual on the “Methodology and GIS-based Implementation of an Integrated Vulnerability Assessment in the Arab Region,” which was discussed during a consultation with ten regional research centers during a workshop held in Beirut in May 2014. The training manual was subsequently revised and provided to ESCWA and ACSAD in August 2014 to support the implementation of the vulnerability assessment.

II. SCOPE

The vulnerability assessment methodology applied under RICCAR is based on the concept of vulnerability advanced by the International Panel on Climate Change (IPCC) in its Fourth Assessment Report (AR4). This report states that:

“Vulnerability to climate change refers to the propensity of human and ecological systems to suffer harm and their ability to respond to stresses imposed as a result of climate change effects. The vulnerability of a society is influenced by its development path, physical exposures, the distribution of resources, prior stresses and social and government institutions (Kelly and Adger, 2000; Jones, 2001; Yohe and Tol, 2002; Turner et al., 2003; O’Brien et al., 2004; Smit and Wandel, 2006).”

One of the most widely used ways to operationalize Vulnerability (V) is through the aggregation of sets of indicators representing Potential Impacts (PI) and Adaptive Capacity (AC). Based on deliberations undertaken by the aforementioned Vulnerability Assessment Working Group and their recommendations to the fifth annual RICCAR Expert Group Meeting, which were approved in Amman on 12 December 2013, this is the approach adopted by RICCAR.

Vulnerability is thus assessed by relating Potential Impacts to Adaptive Capacity. Potential Impacts (PI) is determined by combining a set of indicators that represent the biophysical Exposure (E) to climate

---

change along with a set of indicators representing the Sensitivity (S) of different systems to climate change. Exposure (E), such as changes in temperature, precipitation, runoff, is determined through a set of regional climate models conducted for the Arab region. Sensitivity (S) is determined by classifying the sensitivity of different population groups, natural environments and man-made environments to climate change.

Adaptive Capacity (AC) is in turn represented by a set of indicators representing the ability of people to overcome or succumb to the Potential Impacts (PI) faced by climate change. These indicators are organized into six clusters covering: (a) knowledge and awareness; (b) technology; (c) infrastructure; (d) institutions; (e) economic resources; and (f) equity.

The listing of the proposed indicators generated through discussions undertaken to date is provided in a matrix that will inform the expert discussions during the task force meetings.

The application of the vulnerability assessment methodology across the Arab region is elaborated through the use of geospatial information tools (e.g., ArcGIS 10.1). Two sets of maps are being prepared for each indicator that contributes to the vulnerability assessment. One map is descriptive in nature and can be used to inform other work related to socio-economic development and natural resources management. The second map is based on the first, but draws on expert opinion to classify the information onto a 10 point scale. This normalization process is needed to allow for the aggregation of the indicators and the generation of the integrated vulnerability assessment results for the five key sectors identified by the VA-WG for examination.

The resulting maps will support the identification of hotspots on an integrated vulnerability map. These maps, as well as additional maps representing climate change impacts on the Arab region to the year 2100, will be made freely available on a regional knowledge hub for use by policy-makers, researchers and regional stakeholders.

III. Objectives

The purpose of the task force meetings is to support the expert review the indicators that will contribute to the preparation of the climate change vulnerability assessment. This includes vetting the list of indicators and their associated data sources, data sets and geospatial representation across the Arab region.

Two task forces will be convened for this purpose, a Task Force on Sensitivity Indicators and a Task Force on Adaptive Capacity Indicators. The work of the task forces will be completed upon finalization of the list of recommended indicators and associate data sources to be included in the vulnerability assessment.

IV. Agenda Items

Each task force meetings will be comprised of the following agenda items:

A. Overview of the vulnerability assessment methodology

  (a) VA – Defining Exposure, Sensitivity, Potential Impacts and Adaptive Capacity
  (b) VA – Discussion of aggregation methodology and application at national/regional levels
  (c) Integrated mapping – Differentiating between maps (descriptive v/s normalized maps for VA)

B. Review of Sensitivity or Adaptive Capacity Indicators proposed to date, namely the:

  (a) Task Force on Sensitivity Indicators will review indicators and data sources related to:
      • Population
      • Natural Environments
      • Man-made Environments

3
(b) Task Force on Adaptive Capacity Indicators will review indicators and data sources related to:
- Knowledge and awareness
- Technology
- Infrastructure
- Institutions
- Economic resources
- Equity

C. Review of existing maps and classification decisions

(a) Review of descriptive maps (for at least five indicators)
(b) Review of normalized maps and discussion of associated classification approaches

D. Identification of possible additional indicators and data sources

(a) Identification of potential additional indicators with available data sources
(b) Association of additional indicators to the appropriate cluster and sector.

V. PARTICIPANTS

Each task force is comprised of experts specialized in different socio-economic and environmental sectors of concern to the Arab region. Experts in statistics and geospatial databases will also contribute to the work of the task forces. This specifically includes experts from ACSAD, EURAC, GIZ, ESCWA and regional research institutions and organizations covering the Arab region.

It is expected that participation in the work of the task forces will also help experts and researchers better understand the concepts associated with conduct of vulnerability assessments, as well as provide an introduction to a methodology that can be adapted for application at smaller scales of analysis and different sectors in the Arab region.

Experts are kindly invited to confirm their participation in one or both of the Task Force meetings by email to Ms. Carol Chouchane Cherfane (chouchanicherfane@un.org) and Ms. Maya Hammoud (hammoud@un.org) by 15 October 2014.

Sponsorship for those traveling from outside of Lebanon is kindly provided by the GIZ/ACCWaM project and will be arranged by ESCWA on a request basis. Sponsorship is comprised of roundtrip economy class airfare to Beirut in accordance with United Nations Rules and Regulations; a daily subsistence allowance to cover the cost of accommodations, meals and incidental expenses; as well as a ground transportation allowance. Requests for sponsorship must be received no later than 9 October 2014.

VI. ORGANIZATION OF THE MEETING

The meetings are organized under the RICCAR umbrella by ESCWA and with the League of Arab States Arab Center for the Studies of Arid and Drylands (ACSAD), with funding provided by the GIZ/ACCWaM project.

Participants are encouraged to bring their laptop computers with them to facilitate their review of online datasets and associated information.

VII. VENUE, DATE AND MEETING LANGUAGE

Both Task Force meetings will be held at the United Nations House building located in Riad El Solh Square in Beirut, Lebanon. The VA Task Force on Sensitivity Indicators will be held from 20-21 October 2014 in the Mezzanine (MZ) Conference Room. The VA Task Force on Adaptive Capacity indicators will be
held from 22-23 October 2014. The meetings will start at 9:30 am each day. Discussions will be conducted in the English language. No interpretation will be provided.

VIII. HOTEL

A block of rooms have been reserved at the Markazia Monroe Suites hotel at the preferential room rate of US$ 110/night for a single room and US$ 120 for a double room. The rates include breakfast, all taxes and VAT. WiFi Internet access is available at the hotel free of charge. The hotel is located walking distance from ESCWA (5 minutes) and the commercial districts of Solidere and Beirut Souks (5-10 minutes), where one can find shops, restaurants and cafes.

Markazia Monroe Suites  
Syria Street – Solidere – Downtown Beirut  
Beirut, Lebanon  
Tel: (+961) 1 991 200 – Fax: (+961) 1 991 211  
Email: info@markaziamonroesuites.com  
Web: www.markaziamonroesuite.com

Kindly confirm via email to Ms. Maya Hammoud (hammoud@un.org) that you would like a room reservation at the Markazia Monroe Suites, as reservations should be requested through ESCWA in order to benefit from these preferential rates. Kindly note that hotel expenses will be settled by participants directly with the hotel. Participants choosing to stay at a different hotel are kindly requested to advise ESCWA of their selection, but are responsible for arranging for their own reservations and transportation to ESCWA.

IX. AIRPORT TRANSFERS & LOCAL TRANSPORTATION

Taxis are available at the Beirut International Airport to transport you to your desired destination. A one-way taxi from the airport to a hotel in Beirut costs approximately US$ 25-30.

Airport pick-up service is available at Markazia Monroe Suites at the rate of US$ 30 one way for one to three passengers. Airport drop-off is also available for an additional at US$ 25 (10% VAT will be added if amount is charged to the guest room).

Participants are kindly requested to make their own taxi arrangements directly with the hotel if airport pick-up is desired. Credit card details will be requested by the hotel to confirm your taxi reservation. A no-show fee will be charged by the hotel.

All participants will be responsible for providing their own means of transportation from/to the meeting venue. The Markazia Monroe Suites hotel is located a five minute walk from the United Nations House Building.

X. MEALS

Breakfast is included with the room rate at the Markazia Monroe Suites. Coffee will be provided during the meeting. Time will be allotted for lunch breaks during the meeting to allow participants time to have lunch in the ESCWA cafeteria located on the ground floor or at neighboring restaurants.

XI. PRACTICAL INFORMATION

- Currency: US$ 1 = LBP 1500 (approximately). United States Dollars and Lebanese Pounds can be used interchangeably as common currencies throughout Lebanon.
- Voltage: 220 V - Outlets will fit the two-pin plug known as the European plug.
XII. CORRESPONDENCE

Correspondence and inquiries concerning the workshop should be addressed to:

Ms. Carol Chouchani Cherfane
Chief, Water Resources Section
Sustainable Development and Productivity Division
ESCWA
Beirut, Lebanon
Tel: + 961 1 981 518
Mobile: + 961 3 769 466
Fax: + 961 1 981 510 / 511 / 512
E-mail: chouchanicherfane@un.org

or

Ms. Maya Hammoud
Research Assistant, Water Resources Section
Sustainable Development and Productivity Division
ESCWA
Beirut, Lebanon
Tel: + 961 1 978 814
Mobile: + 961 3 469 739
Fax: + 961 1 981 510 / 511 / 512
Email: hammoud@un.org

For additional information, please visit:
http://www.escwa.un.org/RICCAR